

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 92-110  
NPDES PERMIT CA0028070  
REISSUING WASTE DISCHARGE REQUIREMENTS FOR:  
CITY AND COUNTY OF SAN FRANCISCO,  
SAN FRANCISCO INTERNATIONAL AIRPORT, INDUSTRIAL WASTE  
TREATMENT PLANT  
NORTH BAYSIDE SYSTEM UNIT  
SAN MATEO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. The City and County of San Francisco, San Francisco International Airport, Industrial Waste Treatment Plant submitted a report of waste discharge dated March 15, 1992, for reissuance of NPDES Permit No. CA0028070.
2. San Francisco International Airport is a member of the North Bayside System Unit (NBSU), which is the joint powers authority responsible for operation of certain shared transport, treatment, and disposal facilities. The NBSU includes Millbrae, Burlingame, South San Francisco, San Bruno, San Francisco International Airport (both industrial and domestic waste treatment plants), and Marine Magnesium. The treated wastewater is discharged from the NBSU force main and outfall into lower San Francisco Bay, a water of the State and the United States, northeast of Point San Bruno through a submerged diffuser about 5300 feet offshore at a depth of 20 feet below mean lower low water (37 deg 39 min 55 sec N latitude and 122 deg 21 min 41 sec W longitude). The City and County of San Francisco, San Francisco International Airport, Industrial Waste Treatment Plant and the North Bayside System Unit are hereinafter referred to collectively as the discharger.
3. The Airport's Industrial Waste Treatment Plant discharges dry weather flow of 0.9 million gallons per day (mgd) from its secondary treatment plant which has a dry weather design capacity of 1.2 mgd and a wet weather design capacity of 1.7 mgd. Treatment consists of flow equalization coagulation, flocculation, dissolved air flotation, trickling filter, clarification and chlorination. The final effluent is dechlorinated at the NBSU joint facilities prior to discharge.

The sludge is dewatered on the drying beds prior to its disposal at a permitted landfill. When flow exceeds 1.78 mgd, storm water will be diverted to two storage basins for postponed treatment. During severe storms, when the capacity of treatment and storage are exceeded, excess storm water runoff will be discharged without treatment near the shoreline. Discharge locations are shown on the attached map and described below:

- a. Waste No. 001 consists of industrial wastewater from aircraft service, maintenance, and washing; ground vehicle service and maintenance and rental car service, and surface runoff from aircraft washing areas and polluted portions of aircraft ramps and maintenance areas. During wet weather, Waste NO. 001 includes storm water runoff up to the combined peak wet weather flow of 1.7 mgd. This waste is discharged through the NBSU deep water outfall.
- b. Waste No. 002 (not shown of map) consists of combined effluent from the NBSU which includes treated wastewater from Millbrae, Burlingame, South San Francisco, San Bruno, Marine Magnesium and San Francisco International Airport (both industrial and domestic waste treatment plants).
- c. Waste No. 003 consists of Bay water infiltration and storm water runoff in excess of storage capacity of 0.84 million gallons in the south first flush pond (not shown on map). The runoff is from the area of the Airport south of Taxiway S, including the United Airlines cargo and service facilities, the south side of the passenger terminal and TWA service areas. Discharge occurs from Pump Station No. 1 into San Francisco Bay.
- d. Waste No. 004 consists of Bay water infiltration and stormwater runoff in excess of storage capacity of 3.1 million gallons in the north first flush pond. The runoff is from the area of the Airport north of Taxiway S, including the United Airlines maintenance base and the vehicle parking areas on the northwest side of the passenger terminal. Discharge occurs from Pump Station No. 2 into Seaplane Harbor.
- e. Waste No. 005 consists of relatively unpolluted storm water runoff from the area south of Airport Runway 28L near the intersection of Taxiways F and N. The contributing area is approximately 4800'x 1000'. Discharge occurs from Pump Station No. 1A into San Francisco Bay.

- f. Waste No. 006 consists of relatively unpolluted storm water runoff from the area north of Airport Runway 28 R near the intersection of Taxiways C and N. The contributing area is approximately 4800' x 1000'. Discharge occurs from Pump Station No. 1B into San Francisco Bay.
- g. Waste No. 007 consists of relatively unpolluted storm water runoff from the northwest corner of Airport Runway 19R just off of Taxiway E. The contributing area is approximately 2100' x 2800'. Discharge occurs from Pump Station No. 1C into San Francisco Bay.
- 4. The industrial waste treatment plant's function is to treat the wastewater generated by the tenants on the property of the Airport. A user survey conducted by the discharger showed that United Airlines (UAL) contributes 75% of the total wastewater flow to the plant. The activities at the UAL's Maintenance and Operations Center include aircraft washing, parts cleaning, paint stripping, electroplating, laundry and cells testing. The wastewater generated contains heavy metals, solvents, detergents, and other chemicals. The wastes are segregated and pretreated prior to discharge into the industrial waste collection system.
- 5. The discharger must control its tenants to protect the operation and maintenance personnel, the collection system, to prevent interference and pass-through at the industrial waste treatment plant, and consequently to protect the beneficial uses of the receiving water.
- 6. The Charter of the City and County of San Francisco has empowered the discharger to prescribe rules and regulations for the administration of San Francisco International airport.
- 7. The discharger through a lease and permit system, requires the contributors to install necessary pretreatment facilities to comply with the rules and regulations and local discharge requirements in a Tenant Improvement Guide adopted by the discharger. UAL submits monthly self-monitoring reports to the discharger to document compliance with the local discharge requirements.
- 8. Heavy metals have been detected in the discharge from Waste Nos. 003 and 004. The discharger has investigated and inspected the tenant facilities located in the drainage area. However, the sources of contamination are still unknown but are probably from direct industrial discharges and/or non-point source contaminants. The discharger shall further promote source control programs to identify the contributors and a management plan for best operation of the

first flush ponds. Such actions are needed to minimize the discharge of pollutants to the Airport's drainage system and to San Francisco Bay.

9. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) in December 1991. The Basin Plan contains water quality objectives for San Francisco Bay and contiguous waters.
10. The beneficial uses of San Francisco Bay are:
  - o Contact and Non-Contact water recreation
  - o Wildlife habitat
  - o Preservation of rare and endangered species
  - o Estuarine habitat
  - o Fish spawning and migration
  - o Industrial service supply
  - o Shellfishing
  - o Navigation
  - o Commercial and sport fishing
11. The Basin Plan Discharge Prohibition No.1 states "It shall be prohibited to discharge any wastewater which has particular characteristics of concern to beneficial uses at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1, or into any nontidal water, dead end slough, similar confined waters, or any tributary thereof.
12. The discharger reports and the Board concurs that the cost of containing or providing deep water discharge of all waste would be an inordinate burden relative to the beneficial uses protected. An equivalent level of environmental protection will be achieved by treating up to 1.7 mgd of industrial waste and storm water, storing 3.94 million gallons of the first storm water runoff for postponed treatment, and then discharging only the excess storm water runoff to near shore.
13. The Board finds that a 10:1 initial dilution of waste is not provided at the points of near shore discharge. However, the discharge of these wastes, under the requirements of this order, complies with the qualification in Finding No. 11 for permitting an exception to the prohibition against discharge without 10:1 initial dilution and the Board allows the near shore discharge of excess storm water in Waste Nos. 003, 004, 005, 006 and 007.

14. Effluent limitations and toxic effluent standards established pursuant to Section 301, 304 and 307 of the Clean Water Act and amendments thereto are applicable to the discharge.
15. Effluent limitation guidelines requiring the application of best available technology economically achievable (BAT) for the Airport discharge have not been promulgated by the U. S. Environmental Protection Agency. Effluent limitations of this Order are based on the Basin Plan, State plans and policies, current plant performance, and best engineering judgment. The limitations are considered to be those attainable by BAT, in the judgement of the Board.
16. An Operation and Maintenance Manual is maintained by the Discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities, recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, the manual shall be kept updated to reflect significant changes in treatment facility equipment and operation practices.
17. Federal Regulations for stormwater discharges were promulgated by the US Environmental Protection Agency on November 16, 1990. The regulations [40 Code of Federal Regulations (CFR) Parts 122, 123 and 124] require specific categories of industrial activities which discharge storm water associated within industrial activity (industrial storm water) to obtain a NPDES permit and to implement Best Technology Economically Available (BAT) and Best Conventional Pollutant Control Technology (BCT) to control pollutants in industrial storm water discharges. 40 CFR 122.26(b) (14)(viii) requires that the portions of the airport involved in vehicle maintenance, equipment cleaning operation or airport deicing operations be covered by a storm water permit. The airport already implements a storm water management and monitoring plan, however, this order contains provisions to require the airport's stormwater management & monitoring plan to be consistent with 40 CFR Parts 122, 123 and 124.
18. This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (California Environmental Quality Act) pursuant to Section 13389 of the California Water Code.

19. The Discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided an opportunity for a public hearing and the opportunity to submit their written views and recommendations;
20. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the Discharger shall comply with the following:

A. Discharge Prohibitions

1. The discharge at any point at which the wastewater does not receive an initial dilution of at least 10:1 is prohibited. Exceptions shall be made for storm water runoff (Waste Nos. 003, 004, 005, 006 and 007) in excess of the treatment and storage capacity.
2. Bypass or overflow of wastewater to waters of the State either at the treatment facilities or from the collection or transport system or pump stations tributary to the treatment plant or outfall is prohibited. Exception shall be made for stormwater runoff (Waste Nos. 003, 004, 005, 006 and 007) in excess of the treatment and storage capacity.
3. The average dry weather flow of Waste No. 001 shall not exceed 1.2 mgd. The average shall be determined over three consecutive dry months each year.

B. Effluent Limitations

1. Effluent (Waste E-001) discharged into the combined outfall shall not exceed the following limits:

Constituents	Units	Instantaneous			
		Monthly Average	Weekly Average	Maximum Daily	Maximum
a. Settleable Matter	ml/1-hr	0.1	--	--	0.2
b. BOD <sub>5</sub>	mg/l	30	45	60	--
c. Total Suspended Solids	mg/l	30	45	60	--
d. Oil & Grease	mg/l	10	--	20	--
e. Total Chlorine Residual (1)	mg/l	--	--	--	0.0

(1) Requirement defined as below the limit of detection in standard test methods. Compliance with this limitation will normally be demonstrated at the NBSU joint dechlorination facility.

2. The arithmetic means of the biochemical oxygen demand (5-day, 20°C) and suspended solid values, by weight for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same time during the same period (85 percent removal).
3. The pH of the discharge shall not exceed 9.0 nor be less than 6.0.
4. Acute toxicity: Representative samples of the effluent shall meet the following limit for acute toxicity:  
[Provision E.4 of this Order describes bioassay methodology requirements]
  - a. The survival of organisms in undiluted effluent shall be an eleven sample median value of not less than 90 percent survival, an eleven sample 90 percentile value of not less than 70 percent survival. The eleven sample median and 90th percentile effluent limitations are defined as follows:  
  
-11 sample median: if five or more of the past ten samples are less than 90 percent survival, then survival of less than 90 percent of the next, eleventh sample represents a violation of the effluent limitation.  
  
-90th percentile: If one or more of the past ten samples is less than 70% survival, then survival of less than 70 percent on the next, eleventh, sample represents a violation of the effluent limitation.
5. During the months of May through September the moving median value for the MPN of total coliform in any five (5) consecutive effluent samples shall not exceed 23 coliform organisms per 100 milliliters. Any single sample shall not exceed 240 MPN/100ml.
6. During the months of October through April, the moving median value for the MPN of total coliform in any five (5) consecutive effluent samples shall not exceed 240 MPN/100ml. Any single sample shall not exceed 2400 MPN/100ml.

7. Representative samples of the effluent E-001 shall not exceed the following limits (1):

Limits for Toxic Pollutants

- a. The effluent shall not exceed the following concentration limits(1):

Constituent	30-day Average (ug/l)	1-day Average (ug/l)
Arsenic	---	20
Cadmium	---	30(3)
Total Chromium	---	110
Copper	---	17(3,4)
Lead	---	53(3)
Mercury	0.21(3)	2(3)
Nickel	---	65(3)
Selenium	---	50(3)
Silver	---	23(3)
Zinc	---	500
Cyanide	---	10(3,4)
Phenols	300(3)	1000
PAH(2)	0.31	150

- (1) These limits are intended to be achieved through secondary treatment, and source control.
- (2) PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]-fluoranthene, 1,12-ben\operylene, ben\o[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene, and pyrene.
- (3) These limits are based on the Basin Plan, Table IV-1B.
- (4) These limits are currently being reviewed by the Regional Board and State Water Resources Control Board. If the Statewide Plan and/or Basin Plan adopts limits different from this permit, the new limits will be incorporated into this permit by amendment.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:
- a. Floating, suspended, or deposited macroscopic particulate matter or foam;



- b. Bottom deposits or aquatic growths;
  - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
  - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
  - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

- a. Dissolved Oxygen 5.0 mg/l, minimum.

The median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation. When natural factors cause lesser concentrations than those specified above, then the discharge shall not cause further reduction in the ambient concentration of dissolved oxygen.

- b. Dissolved Sulfide 0.1 mg/l, maximum.
  - c. pH variation from normal ambient pH by more than 0.5 pH units.
  - d. Un-ionized Ammonia 0.025 mg/l as N, annual median; 0.16 mg/l as N, maximum.
3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. SLUDGE HANDLING AND DISPOSAL REQUIREMENTS

- 1. All sludge treatment, processing, storage or disposal activities under the Discharger's control shall be in compliance with current state and federal regulations.

2. The Board may amend this Order prior to the expiration date if necessary to accommodate changes in applicable state or federal sludge regulations, or changes in the Discharger's sludge management procedures.
3. The Discharger shall notify the Board, in writing, of any significant changes in its sludge disposal practices.
4. The treatment, processing, storage or disposal of sludge conducted by the Discharger shall not create a condition of pollution or nuisance as defined in Section 13050 (1) and (m) of the California Water Code.
5. The treatment, processing, storage or disposal of sludge by the Discharger shall not cause waste material to be discharged to, or deposited in, waters of the State, nor cause degradation of groundwaters.
6. Sludge storage facilities under the Discharger's control shall be operated and maintained in such a manner as to provide adequate protection from surface runoff, erosion, or other conditions which would cause drainage from the waste materials to escape from the storage facility site(s).
7. The discharge to the Discharger's sludge storage facilities of waste other than sewage sludge produced by the Discharger's wastewater treatment facility is prohibited.

E. Provisions

1. Requirements prescribed by this order supersede the requirements prescribed by Order No. 87-127. Order No. 87-127 is hereby rescinded.
2. Where concentration limitations in mg/l or ug/l are contained in this Permit, the following Mass Emission Limitations shall also apply:  
  
$$(\text{Mass Emission Limit in lbs/day}) = (\text{Concentration Limit in mg/l}) \times (\text{Actual Flow in million gallons per day averaged over the time interval to which the limit applies}) \times 8.34$$
  
(conversion factor).
3. The Discharger shall comply with all sections of this Order immediately upon adoption.
4. Bioassays: Compliance with Effluent Limitation B.6 of this Order shall be evaluated by measuring survival of test fishes exposed to undiluted effluent for 96 hours in static renewal bioassays, using 24-hour composite samples representative of the effluent.

Two fish species will be tested concurrently. These shall be the most sensitive species determined from a single concurrent screening of three species: three-spine stickleback, rainbow trout and fathead minnow.

Compliance monitoring with only on fish species (the most sensitive, if known) may be allowed by the Board's Executive Officer, based on consistent with acute toxicity effluent limitations, and in accordance with the 1991 Basin Plan and amendments thereto.

All bioassays shall be performed according to protocols approved by the U.S. EPA or State Board, or published by the American Society for Testing and Materials (ASTM) or American Public Health Association.

5. The discharger shall expand of reclaimed water distribution system into its water and facilities planning.
6. The discharger shall submit a Industrial Storm Water Pollution Prevention Plan to the Board that is acceptable to the Executive Officer on or before March 1, 1993. The plan shall include a detailed discussion of, but not limited to, (1) source identification, (2) practices to reduce pollutants, (3) an assessment of potential pollution sources, (4) a material inventory, (5) a preventive maintenance program, (6) spill prevention and response procedures, (7) general storm water management practices, (8) employee training, (9) facility inspection, (10) record keeping, and (11) elimination of unpermitted non storm water discharges to the industrial storm water system. **These requirements shall apply to stormwater discharges from all the Airport's tenants, regardless of whether these systems are currently managed or maintained by the Discharger.**
7. The discharger shall submit a Industrial Storm Water Monitoring Program to the Board that is acceptable to the Executive Officer on or before October 31, 1992. The main objective of the monitoring program is to provide site specific information on each storm water discharge point to aid the implementation of the Storm Water Pollution Prevention Plan. Sampling programs must include analysis for pH, total suspended solids (TSS), total organic carbon, specific conductance, and toxic substances which are expected to be present in significant quantities in the storm water discharge.
8. The discharger shall submit a detailed engineering proposal that is acceptable to the Executive Officer on or before March 1, 1993 to prevent any potential industrial wastewater bypass from drainage stations E003 and E004.

9. The Discharger shall comply with the attached Self-Monitoring Program. The Board's Executive Officer may make minor amendments to this Self-Monitoring Program pursuant to federal regulations (40 CFR 122.63).
10. The Discharger shall comply with all applicable items of the attached "Standard Provisions and Reporting Requirements" dated December, 1986.
11. The Discharger shall review and update its Operations and Maintenance Manual annually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Regional Board by April 15 of each year.
12. The Discharger shall review and update by December 31, annually, its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the Discharger has failed to develop and/or implement a contingency plan will be the basis for considering such a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.
13. This Order expires September 16, 1997. The Discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.
14. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective ten days after the date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objections. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on September 16, 1992.



STEVEN R. RITCHIE  
Executive Officer

Attachments:

Location Map  
Standard Provisions and Reporting  
Requirements, December 1986  
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
FOR  
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

CITY AND COUNTY OF SAN FRANCISCO  
SAN FRANCISCO INTERNATIONAL AIRPORT

INDUSTRIAL WASTE TREATMENT PLANT

NORTH BAYSIDE SYSTEM UNIT

SAN MATEO COUNTY

NPDES NO. CA0028070

ORDER NO. 92-110

CONSIST OF

PART A

AND

PART B

## PART B

### I. DESCRIPTION OF SAMPLING STATIONS

#### A. INFLUENT AND INTAKE

Station	Description
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present, preceding any phase of treatment, and exclusive of any return flows or process sidestreams.

#### B. EFFLUENT

Station	Description
E-001	At any point in the plant after disinfection between the point of discharge into the combined outfall and the point at which all waste from the treatment plant is present.
E-002	At any point in the combined outfall after dechlorination between the point of discharge into San Francisco Bay and the point at which all waste tributary to that combined outfall is present.
E-003	At the point of discharge from the southern sump (pump station no. 1).
E-004	At the point of discharge from the northern sump (pump station no. 2).
E-005	At the point of discharge from the pump station no. 1A.
E-006	At the point of discharge from the pump station no. 1B.
E-007	At the point of discharge from the pump station no. 1C.

#### C. RECEIVING WATERS

Station	Description
C-1	At a point in San Francisco Bay located over the geometric center of the outfall's discharge ports.
C-2	At a point in San Francisco Bay located midway between C-1 and C-3.
C-3	At a point in San Francisco Bay located in the center of the waste plume.

C-50-SW	At a point in San Francisco Bay, located 50 feet southwesterly, along the outfall line shoreward from Station C-1.
C-50-NW	At a point in San Francisco Bay, located 50 feet northwesterly from Station C-1, normal to the outfall line.
C-50-NE	At a point in San Francisco Bay located 50 feet northeasterly from Station C-1, along the outfall line extended.
C-50-SE	At a point in San Francisco Bay located 50 feet southeasterly from Station C-1 normal to the outfall.
C-300-N through C-300-NW (8 stations)	At a point in San Francisco Bay located on a 300 foot radius from the geometric center of the outfall diffuser, at equidistant intervals, with Station C-300-SW located shoreward from Station C-1 at the outfall line.
C-R-NW	At a point in San Francisco Bay located approximately 1500 feet northerly from the point of discharge.
C-R-SE	At a point in San Francisco Bay, located approximately 1500 feet southeasterly from the point of discharge.

#### D. LAND OBSERVATION

Station	Description
P-1 through P-'n'	Located along the periphery of the waste treatment or disposal facilities, at equidistant intervals, not to exceed 100 feet. ( A sketch showing the locations of these stations shall accompany each report.)

#### E. OVERFLOWS AND BYPASSES

Station	Description
OV-1 through OV-'n'	Bypass or overflows from manholes, pump stations, or collection system. ( Initial SMP report to include map and description of each known bypass or overflow location, and report on pump station alarms, pumping capacity, upstream storage capacity and bypass location.)

Reporting: Shall be submitted monthly and include date, location, cause and volume of each overflow or bypass and measures taken or planned to prevent future occurrences.



## II. REPORTING REQUIREMENTS

A. The self-monitoring report shall be submitted monthly to include data requested under I.A, I.B, I.C, I.D and I.E. Date collected at the joint facilities can be omitted from the monthly self-monitoring report if it is reported to the Board by the lead agency responsible for the operation of the joint facilities.

## III. SCHEDULE OF SAMPLING AND ANALYSIS


The schedule of sampling and analysis shall be that given as Table I.

I, Steven R. Ritchie, Executive Officer do hereby certify the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in the Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 92-110.

Is effective on the date shown below.

May be amended by the Executive Officer pursuant the 40 CFR 122.63.

  
STEVEN R. RITCHIE  
Executive Officer

Date: 7/6/92

Attachments:

Table I and Legend for Table

Order No.

**TABLE 1**  
**SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS (1**

SAMPLING STATION	A-001		E-001			E-002			E-003to E-007	All P	All C(10
TYPE OF SAMPLE	Cont.	C-24	G(4	C-24(4	Cont.	G	C-24(5	Cont.	G(13	O	G
Flow Rate(mgd)	Cont.							Cont.	D(12		
BOD,5-day,20 C and COD*		2/w							M		
Chlorine Residual & Dosage*			2H or Cont. (8			2H or Cont.(8					
Settleable Matter (ml/1-hr. & cu.ft./day)			D			D			M		
Total Suspended Matter*		2/w		5/w			5/w		M		
Oil and Grease*		M(2	M			2M(2			M		
Coliform (Total or Fecal) (MPN/100ml)per req't			3/w			5/w					M(3
Fish Toxicity 96-hr % Surv'l in undiluted waste				M(6			M(5		M		
Ammonia Nitrogen*				M(9			M(9				
Nitrate Nitrogen*							M(9				
Nitrite Nitrogen*							M(9				
Total Organic Nitrogen*											
Total Phosphate*											
Turbidity (Jackson Turbidity Units)				D			M				M
pH (unit)	Cont.		D						M		M
Dissolved Oxygen (mg/l and % Saturation)			D								M
Temperature (C)			D								M
Apparent Color(color units)											
Secchi Disc (inches)											M
Sulfides (if DO<5.0 mg/l) Total & Dissolved (mg/l)											M
Arsenic *				M(7					M		
Cadmium *				M(7					M		
Chromium, Total *				M(7					M		
Copper *				M(7					M		
Cyanide *				M(7					M		
Silver *				M(7					M		
Lead *				M(7					M		
Mercury*				M(7					M		
Nickel*				M(7					M		
Zinc*				M(7					M		
Selenium				M(7					M		

\* Unit in (mg/l &amp; kg/day)

**TABLE 1 (continued)**  
**SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS (1)**

SAMPLING STATION	A-001		E-001			E-002			E-003 to E-007	All P	All C
TYPE OF SAMPLE	Cont.	C-24	G(4	C-24(4	Cont.	G	C-24(5	Cont.	G(13	Sta.	Sta.(10
Surfactant MBSA				M(7					M(15		
Phenolic Compounds*				M(7					M		
All Applicable Standard				D		D			M(12	M	M
Observations											
Total Identifiable Chlorinated Hydrocarbons*				Q(7							
Non-dissociated Ammonium Hydrocarbon as N (mg/l)											M
Total Organic Carbon (MPN/100ml)per req't									M		
Fish Toxicity 96-hr % Surv'l in undiluted waste											
Dewatered Sludge										D(11	
Daily Rainfall										D	
PAHs				M							

**LEGEND FOR TABLE**

TYPE OF SAMPLES

G = grab sample  
C-24 = composite sample - 24-hour  
Cont. = continuous sampling  
O = observation

TYPES OF STATIONS

E = waste effluent stations  
A = treatment facility influent stations  
C = receiving water stations  
P = treatment facilities perimeter stations  
L = basin and/or pond levee stations

FREQUENCY OF SAMPLING

E = each occurrence  
D = once each day  
W = once each week  
M = once each month

2/w = 2 days per week  
5/w = 5 days per week  
2/m = 2 days per month

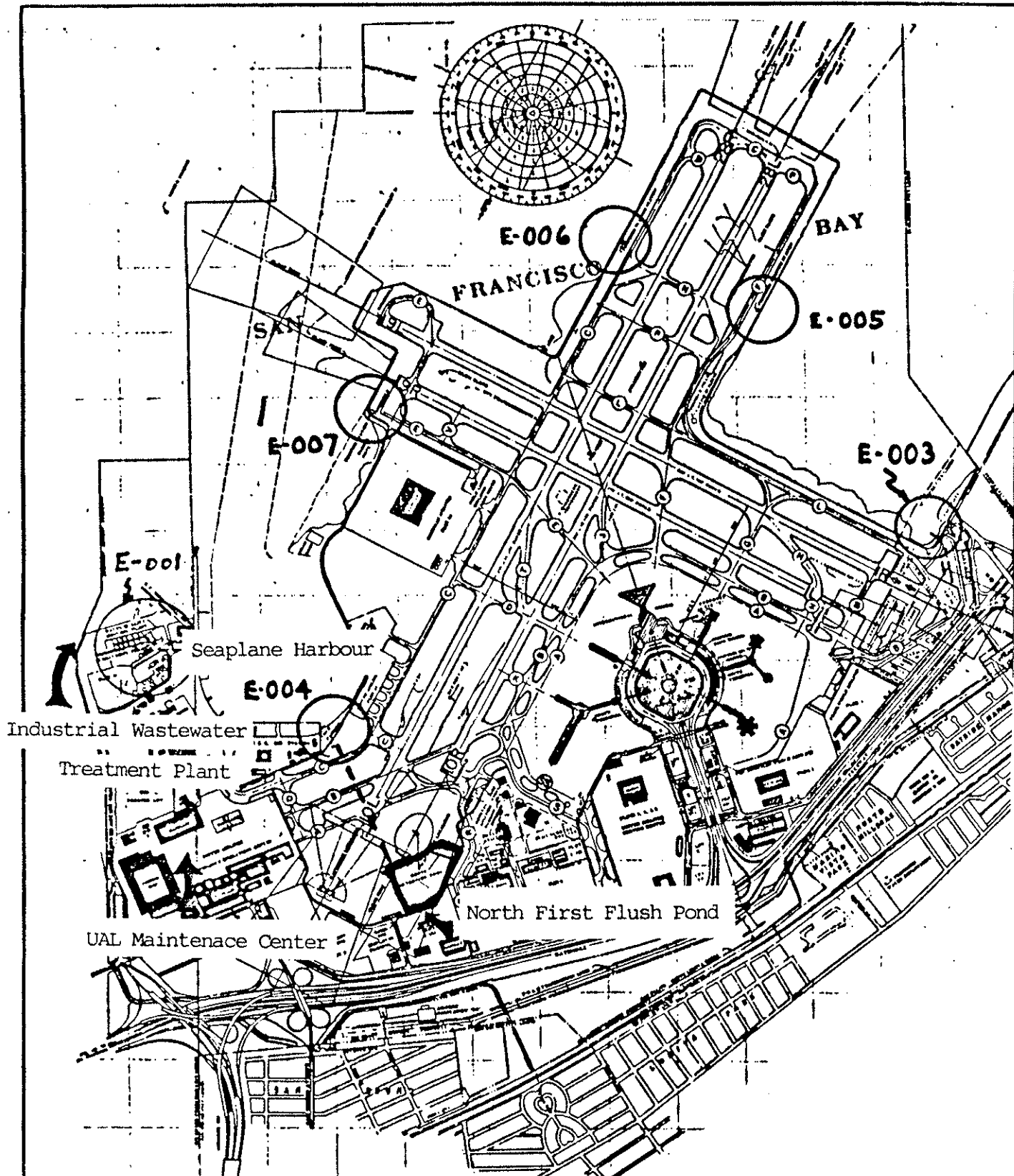
2H = every 2 hours  
2D = every 2 days  
2W = every 2 weeks  
3M = every 3 months  
Cont. = continuous

Footnotes -- Table 1

- (1) During any day when bypassing occurs from any treatment unit(s) in the plant or to the emergency outfall, the monitoring program for the effluent and any nearshore discharge shall include the following in addition to the above schedule for sampling, measurement and analyses:
  - a. Composite sample on a hourly basis for BOD and Total Suspended Solids during bypassing.
  - b. Grab samples on a daily basis for Total Coliform, Settleable Matter and Oil and Grease.
  - c. Continuous monitoring of flow.
  - d. Continuous or every two hour monitoring of chlorine residual.
- (2) Oil and Grease sampling shall consist of 3 grab samples taken at 8 hour intervals during the sampling day with each grab being collected in glass container and analyzed separately. Results for stations A-001 and E-001 shall be expressed as a weighted average of the 3 values, based upon the instantaneous flow rates occurring at the time of each grab sample. Results for station E-002 shall be expressed as a sample average of the three values. If the plant is not staffed 24 hours per day or if the discharge does not occur continuously, then the three grab samples may be taken at approximately equal intervals during the period that the plant is staffed or during the period that discharge is made.

The 3 grab samples may be combined and analyzed as a composite sample after submitted of data acceptable tot he Executive Officer that the two techniques are equivalent. In the event that sampling for oil and grease once every two weeks or less frequently shows an apparent violation of the waste discharge permit, 30-day average limitation (considering the results of one or two day's sampling as a 30-day average), then the sampling frequency shall be increased to weekly so that a true 30-day average can be computed and compliance can be determined.
- (3) 5 samples per station each day at Stations C-1, 2, 3, CR-NM and CR-SE only.
- (4) Grab samples shall be taken on day(s) of composite sampling.
- (5) Sample date for bioassay and for one of all other specified parameters at E-002 shall coincide with date and times of Marine Magnesium E-001.

- (6) If a continuous bioassay is to be run, sample may be taken from E-001 prior to disinfection instead of dechlorinating E-001 effluent.
- (7) If any sample is in violation of limits, sampling shall be increased for that parameter to weekly until compliance is demonstrated in two successive samples.
- (8) Data shall be reported using Form A (attached) or equivalent, chlorine residual analysers shall be calibrated against grab samples as frequently as necessary to maintain accurate control and reliable operation. If an effluent violation is detected, grab samples shall be taken every 30 minutes until compliance is achieved.
- (9) These parameters shall be tested for on the same composite sample used for the bioassay.
- (10) Monthly sampling dates and approximately times shall coincide with receiving water monitoring conducted by the City of South San Francisco and the North Bayside System Unit.
- (11) Daily recorded daily during wet weather months (October-April) and weekly during dry weather from pump run times (hour meters). Visual observations of the appearance of any liquid in the sumps shall be made and recorded at the times the hour meters are checked. Sumps to be inspected for and cleaned of any organic settled solids in September of each year.
- (12) Samples shall be taken using an automatic sampler capable of collecting discrete, consecutive samples in glass bottles. Samplers shall commence sampling when the lead discharge pump commences pumping. Proposed frequency and duration of sampler operation shall be submitted to and approved by the Executive Officer. The number of discrete samples to be taken and analyzed shall also be so approved.
- (13) Monthly sampling during wet weather months (October-April) for E-005, E-006 and E-007.
- (14) Sampling only apply to drainage station E-004.



E-001 -- Effluent From Industrial Waste Treatment Plant

E-003 to E-007 -- Stormwater Collection Pump Stations

STATE OF CALIFORNIA  
REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

LOCATION MAP:

City and County of San Francisco  
International Airport

DRAWN BY:

DATE:

DRWG. NO.